WAR FOOD ADMINISTRATION
Food Distribution Administration

OUTLINE SPECIFICATIONS FOR TYPICAL PLANS SKIM-MILK DRYING PLANTS

CONSTRUCTION

Foundations

Concrete, non-reinforced unless unusual ground conditions require reinforcing for footings or walls.

Walls

exterior - select common brick or very inexpensive face brick.
interior - glazed tile in Milk Room and Receiving Room only. All other interior walls smooth faced unglazed back-up tile or common brick.
opening for equipment - provide opening in exterior or interior wall of Milk Room (to be filled in with masonry) for installing large pieces of equipment.

Floors

on ground - concrete, reinforced with mesh not over .21# per sq. ft. unless unusual ground conditions require additional reinforcing.
structural- concrete joists, either metal form type or with clay tile fillers. Live load not over 75# per sq. ft.
finish - all floors smooth finished with hardener. Office wing may have 1/8" asphalt tile floor.
stairs - concrete as for floors. All stairs in connection with equipment to be steel and furnished as part of equipment.

Roof

construction - columns and steel beams either 2nd hand or from idle or excess stocks. Joists #2 common as shown. If 3" or 4" thick timbers are available they can be spaced 3' or 4' c.c. with 2" laminated gypsum board decking.
roofing - built-up roof 3-ply (10 year), with wood gravel stops and down spouts.
ceiling - 1/2" insulation board type in office wing. Laminated gypsum board 1" to 2" thick in Boiler Room as required for fire protection. No ceilings in other areas.

Millwork

doors - Sliding doors on barn track. Door from storage to Boiler Room to be fire door with fusible link. Door from Receiving Room to Milk Room to be fire door if required by state or local laws. All other doors to be 1-3/4" wood.

windows - all windows to be wood--factory type or double hung.
screens - all operating windows and doors to be screened with not less than 16 mesh cloth.
trim - #1 common or clear stock as available locally.

Plumbing

sewers - sanitary sewers under floors, drainage from second floor and main vents, cast iron. Other sewers vitrified tile. Waste and vents 2" and under, black iron.
water - galvanized standard weight steel or galvanized wrought iron.
fixtures - vitreous china with "Victory" fittings, floor drains cast iron.
H. W. heater - tank in Boiler Room with steam coil. 200 gallon for 2 unit plant, 100 gallon for 1 unit plant.

Heating

Design - Receiving Room 50°

Milk Room 60°

Storage 45° (sifting area 60°)

Office wing 70°

Dryer Room 60° (Rogers system only)

type - office wing - wall radiators

other rooms - unit heaters

Electric

Lighting - Receiving Room 2w/sq. ft.

Milk Room 2w/sq. ft. (sifting area 2w/sq. ft.)

Storage 1/2-w/sq. ft. (sifting area 2w/sq. ft.)

Office wing 2-1/2-w/sq. ft.

Dryer Room 1w/sq. ft. (Rogers system only)

Special lighting as required for type of equipment.

power - motors as required.

wiring - open type knob and tube or non-metallic sheathed cable in frame ceilings. Electric metallic tubing (thinwall conduit) in masonry or concrete and for exposed wiring on walls or to motors. Flexible conduit for motor connections not to exceed 12 feet per connection.

[illegible] - [illegible] or [illegible] bug.
[illegible] - [illegible] not [illegible] than [illegible].
[illegible] - [illegible] available locally.

Flooring

[illegible] - [illegible] under floors, failures from second floor and main [illegible], overflows, other [illegible] [illegible], [illegible] [illegible] [illegible], [illegible] [illegible].
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R. R. Siding, Driveways, etc.

R. R. Siding - single track past building far enough to serve coal storage yard.

driveways - water bound macadam unless plant is very close to main highway or unless grades make concrete or other type of hard surfaced road necessary.

walks - concrete from driveway to front entrance.

UTILITIES

Water supply

source - city water supply if available and adequate; otherwise single deep well with turbine pump wherever praeficable.

amount - Rogers 2 unit - 600 gpm @ 55 degrees
360,000gal. per day

1 unit - 300 gpm @ 55 degrees

180,000 gal. per day

Douthitt 2 unit - 100 gpm

30,000 gal.per day

1 unit - 100 gpm

15,000 gal.per day

storage - Rogers 2 unit -10,000 gal.wood tank

1 unit -5,000 gal.wood tank

(bottom of tank not higher than top of vacuum pans)

Douthitt - no storage

pressure - steam driven turbine booster pump for 40# pressure direct connected to house main.

Milk waste disposal

city sewer - if available and if city authorities certify that system is adequate for additional load.

special plant - preliminary survey and recommendations for requirements should be secured from city or state Board of Health. Design submitted with application must bear tentative approval of proper authorities. Where Rogers system is used every effort should be made to dispose of unpolluted processing water from vacuum pans without passing it through waste disposal plant.

Sewage Disposal

city sewer - if available.

septic tank - as required by City or State Board of Health.

Electric

service - public utility power unless very special conditions justify use of steam driven turbine-generators.
characteristics - 220/440 V. 3 phase 60 cycle for power.
110/220 V. 1 " 60 " " light.

Steam

boilers - similar to 200 H. P. rated capacity Scotch marine boilers as manufactured by James Leffel & Co. Springfield, Ohio for mounting on concrete piers.
controls- safety valves, blow-off valve, steam gauge, high and low water alarm column and injector, all fitted to boiler.
stokers - similar to underfeed stoker as manufactured by James Leffel & Co.
breeching-black steel less than 3/16" thick with free area not less than 1.75 sq. ft. per 100 developed boiler H. P.
stack - radial tile or brick, Size shown on plans is for rated capacity of boilers shown.
coal handling equipment - car unloading conveyor and buggies for handling from coal pile to stoker hopper.

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